STATE DEPARTMENT OF HEALTH

AUSTIN TEXAS

INTER-OFFICE

FROM Stanley W. Thaggon, P.E. Regional Engineer

TO B.F. Smithhurst, P.E., Director Division of Water Pollution Control

SUBJECT Investigation of Industrial Waste Disposal - Champion Paper, Inc., Pasadena

Following a request from Hugh Yantis, Assistant Executive Secretary of the Water Pollution Control Board, the writer and Sanitarian John Kidd contacted officials of the Champion Paper, Inc., Pasadena, Texas, and made an investigation of the present waste disposal practices of the company. This investigation was made on April 22, 1966.

Persons contacted during the course of the investigation included:

Mr. J.L. Henderson	- Champion Paper	
Mr. A.J. Navarre	- " "	
Mr. V.C. McGinnes	- McGinnes Industrial Maint. Corp.	
Mr. George Lourie	- " " " "	(Secry-Treas)
A.E. Kimball	- " " " "	(Gen. Manager

The mailing addresses of the companys are:

Champion Papers, Inc., P.O. Box 672, Pasadena, Texas 77501

McGinnes Ind. Maint. Corp., 201 N. Richey, Pasadena, Tex 77502

In addition to the above, Sanitarian Bob Douglass of the Harris County Health Department, Air and Stream Pollution Section, was contacted in the absence of Dr. W.A. Quebedeaux, Chief of the Section. Mr. Douglass was unable to assist in the inspection.

General

The investigation covered the present practice of disposal of settled solids from the Champion Paper processes, a practice which is carried out by the McGinnes Ind. Maint. Corp. This practice consists of the removal of the settled material from the secondary ponds at Champion plant, the transporting of the material by barge to an area adjacent to the San Jacinto River (Near Hwy 73), and the unloading from the barge into ponds which have been formed by levees. This operation has been carried out since approximately 4 years ago with the first operation begun in June of 1965. This work was done by the Ollie Peterson Construction Co., with the McGinnes Corp. taking over and beginning operation on September 13, 1965.

This particular type of operation is carried out in a cycle of sorts. The ponds at Champion are allowed to fill with the material (or one full and the other approaching it) and hauling is then begin on the full pit. At the time of the inspection, both pits had been cleaned with about 5 barge loads (est. by Mr. McGinnes) left to remove. This would complete the operation until the ponds are again full - which is expected to be sometime later this year.

SIGNED

Quality of Material Removed

An analysis of the material was not available, but officials of Champion indicated that the material was neutral in pH, non-toxic, and primarily fibrous. The dried material resembled a cheaper grade of cardboard - such as used in egg cartons, etc. Mr. McGinnes reported that he had used it successfully for matting for his equipment in the disposal site.

The material appears to solidify rapidly and Mr. Henderson reported that a vertical wall can be cut in the ponds while removing it and that the wall will stand. It was also reported that after the material has set a short time, that water will not penetrate it - that rain water will stand over it. It was further reported that grass can be started on the dry material and that it will spread rapidly, thus further cutting off water.

The material is removed by use of jetting (using waste water from the third set of ponds) and is reported to be removed with a solid content of 25% to 30%.

Quantity of Material

It was estimated by Mr. Henderson that complete cleaning of the two ponds would result in removal of about 135,000 cubic yards of the material. The barges used in the operation will hold about 1000 yards and three barges are used. This allows one barge to be in the process of being filled, one to bein the process of being unloaded, and one to be in transit. About 6 hours is required for for the complete operation. Two shifts have been in operation to allow an average of 6 barge loads per day to be hauled.

Mr. Henderson stated that the material was accumulating at Champion at an estimated rate of 1 barge load per day.

Disposal Site

As mentioned, the disposal site is adjacent to the San Jacinto River at the Hwy 73 Bridge with the older site on the south side of the Highway and the newer site on the North side. The older site was used prior to McGinnes Corp taking over the operation and appears to consist of a pond covering between 15 and 20 acres. The new (and present) site consists of an estimated 20+ acres, of which slightly less than 15 are being used. This area contains two ponds.

One of the ponds has been filled and the second is nearly full. Levees on the first pond appear to be in good shape, with possibly slight seepage, while the second pond needs additional work on the levees. According to Mr. McGinnes, wet weather has prohibited the proper completion of the levees and additional work is to be done as soon-as possible.

The two new ponds are connected with a drain line to allow the flow of excess water (including rain water) from pond #1 to pond #2, where it collects near the barge unloading area. At the present time, this water is pumped back into the barges and returned to the Champion Paper plant where it is passed through the last settling ponds and discharged to the Channel with the rest of the plant effluent. This particular operation will be mentioned later in the report.

Danger to River

According to available information, the river is not subject to flooding which might wash out the levees - that is, subject to flooding from rainfall without the aid of a storm such as Carla. In that event, the disposal area might well be covered with water.

It also appears that the material will solidify after being in the ponds a short time and there would be no danger of pollution from seepage. The only water is that which does separate from the solid material and rainfall.

Excess Water & Its Disposal

At the present time, the excess water plus rainfall which collectes in the pond area is pumped into the barges and is carried back to Champion Paper and discharged through the final settling ponds. According to Mr. Henderson and Mr. McGinnes, this operation is not economical and they are very interested in finding out if the water could be discharged into the River at the disposal site. The main though in the removal of water being that the solidification of the material and the draining of the top water would allow the discharge of more wastes to the area.

An example of this is the older area (South of the Hwy), where the water ranges from 3 - 5 feet deep. Mr. Kimball had a minnow bucket type of container submerged in this water with fish in it and reported that they had been there for several weeks. These fish (or minnows) were in good condition.

Quality of Excess Water

Samples were collected of the water in the various pits and submitted to the Austin State Dept of Health Laboratory for analysis. The samples and their results are as follows:

Point of coll	pH	BOD	Sulphates	Chlorides	S.S	D.O.	Col
#1 - New Pond #2 - near pt of return to barge	7.8	1590	5	790	213	0	220
#2 - New Pond #1	7.4	> 2,500	31	470	524	0	110
#3 - San Jacinto River - near barging pt	7.3	2.5	78	465	36	4.4	
#4 - Old Pond - South of Hwy 73	8.3	8.0	50	2060	20	2.2	110

In general appearance, samples #1 and #2 were very dark with #4 somewhat lighter. The water from the older pond (Sample #4) had been undisturbed for some 6 to 7 months.

Officials of both companies were most anxious to work something out regarding this method of waste disposal. It appears that several things are to be considered in the matter.

1. The type of waste involved is not easy to get rid of, there is a large amount of the waste, and there will be an even larger amount in the future. This larger amount will be due to the new, and more efficient, waste treatment equipment that is to be provided by Champion Paper.

2. Very large tracts of land would be required for extended operation of this type, and this land would need to be accessible to barges - so as major rivers or streams. Apparently, the company officials feel that they can return to the areas after a period of time and deposit additional material. This would be necessary to get the full benefit from the land.

3. There is no market for such material for use as fill material.

4. It also appears that continued operation would depend on the ability to return the water off the ponds to the adjacent stream rather than return it to the plant.

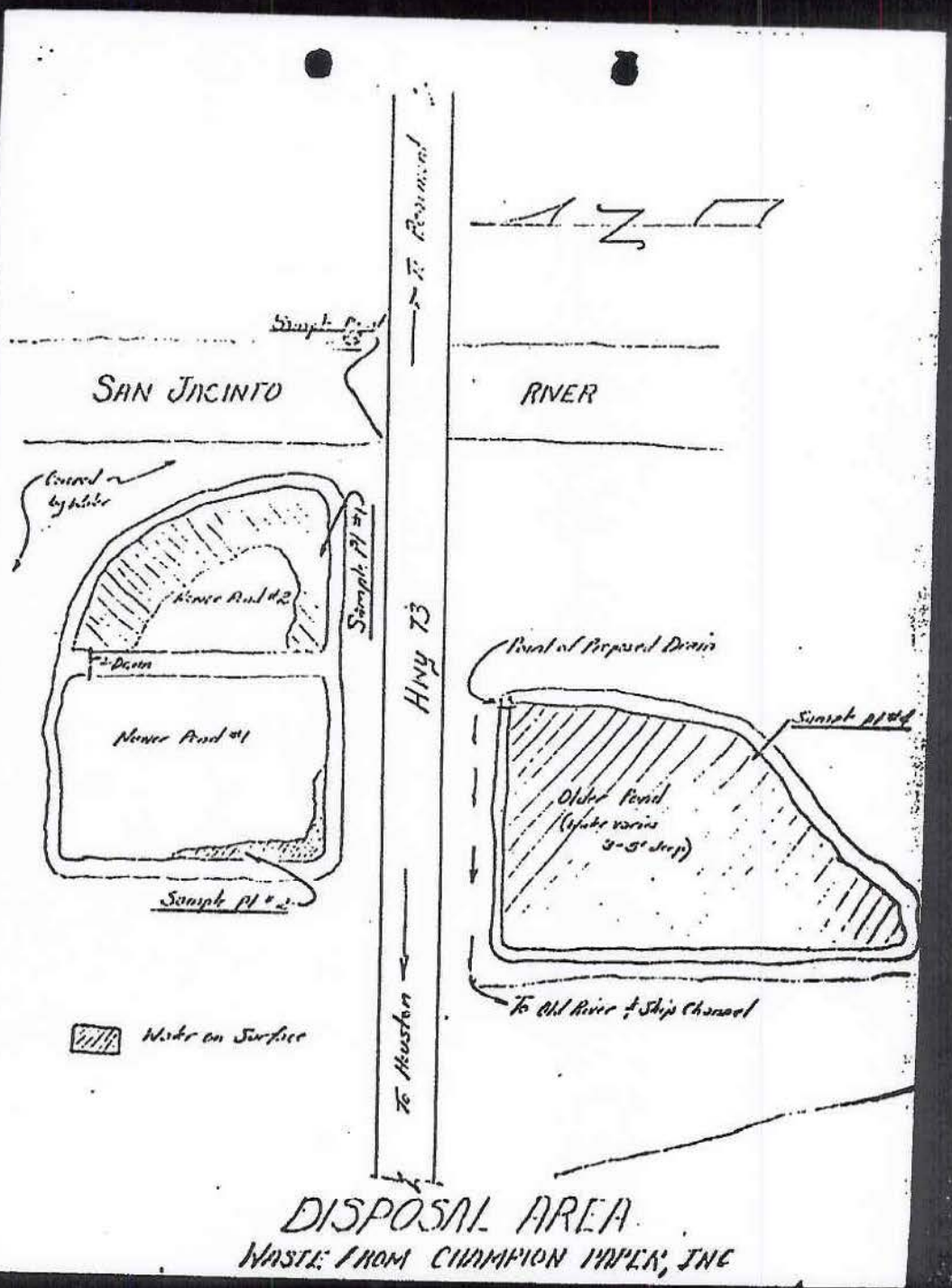
The operation and the need for submitting an application for a permit from the WPCB was discussed with Mr. Henderson and Mr. McGinnes, and it is understood that such a permit would be obtained by Mr. McGinnes rather than by Champion. There is apparently the thought, or plan, that Mr. McGinnes would obtain the permit and handle the wastes from Champion under contract (the present set-up) and then also take care of such other industrial wastes that he might be able to handle (not from Champion).

It is the writer's understanding that nothing was to be done in the way of a permit application until the results of the sample analyses were received. At that time, the company officials would get in touch with the WPCB and its staff to discuss the matter further and get the thinking of the Board in light of the sample results. By that time, the companies should also have information regarding the chemical content of the material. It was felt that this would be the best approach to the matter since the present cycle of operation was essentially completed and time would be available to either obtain a permit for the operation - or work out a different method of disposal- prior to the need for renewed removal of the waste material.

Respectfully submitted,

Stanley R. Thompson

Stanley R. Thompson, P.E.
May 6, 1966



DISPOSAL AREA

WASTE FROM CHAMPION PAPER, INC